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10/712,176	11/13/2003	Ronald S. Cok	86813THC	7881

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09/21/2005

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EXAMINER

RIELLEY, ELIZABETH A

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,176

Applicant(s)

COK ET AL.

Examiner

Elizabeth A. Rielley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- miss* 4a) Of the above claim(s) 24-45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/13/03 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/6/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 24-45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 7/5/05. The traversal is on the grounds that it has not been shown that either (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. The Examiner respectfully disagrees. The process claimed, that is using a mask to form regions of material onto a substrate, may be practiced by another materially different apparatus. For example, one may either (a) apply an entire layer of the material onto the substrate then etch away the portions that are not desired or (b) the material may be pre-made onto a second substrate, attaching an adhesive onto the pre-made layer, placing the second substrate onto the first with the layers effectively sandwiching the pre-made layers, then removing the second substrate. Hence, the process claimed can be practiced by another materially different apparatus.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "the mechanical clamp" in line 1 of claim 22. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2, 6, 10, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Sakamaki et al (US 6842278).

In regard to claim 1, Sakamaki et al ('278) teach a method of applying patterned materials for manufacture of a flat panel light source, comprising: a) providing a flexible continuous substrate (50a; figure 24; column 19 line 65 to column 20 line 37) b) providing one or more application stations (see figure 24), each application station having: i) one or more stationary sources of material (118), ii) a supply of discrete patterned masks for defining a pattern of material to be applied to the substrate (116), iii) means for attaching the discrete patterned masks to the substrate(column 20 lines 4-10); iv) means for transporting the substrate and the patterned mask in registration past the one or more stationary sources of material (52; column 11 lines 7-25), and v) means for delivering the masks one at a time to the transporting means see figure 24); and c) transporting the substrate and the masks past the one or more application stations (52; see figure 24).

In regard to claim 2, Sakamaki et al ('278) teach the stationary source (118) is a linear source arranged orthogonal to the direction of transport (see figure 24).

In regard to claim 6, Sakamaki et al ('278) teach the materials are light emissive materials, semiconductor materials, conductors, or dielectrics (103; column 20 lines 4-10).

In regard to claim 10, Sakamaki et al ('278) teach this method creates a flat panel light source (abstract).

In regard to claim 11, Sakamaki et al ('278) teach the masks are discarded after a single use (column 20 lines 11-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5 and 12-14 rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al (US 6842278) in view of Grace et al (US 20020196401).

Sakamaki et al ('278) disclose all the limitations set forth, as described above, except that the stationary sources are arranged in parallel with respect to the direction of transport; the application stations are arranged in parallel with respect to the direction of transport; the light source is an OLED light source; the substrate is a web mounted on a supply roller located on one side of the application station(s); and the step of cutting the substrate into sheets after deposition of the material. Grace et al ('401) teach the stationary sources (82; figure 7; paragraph 84) are arranged in parallel with respect to the direction of transport (paragraph 100); the application stations (82) are arranged in parallel with respect to the direction of transport (paragraph 84); the light source is an OLED light source (abstract); the substrate is a web mounted on a supply roller located on one side of the application station (abstract; see figure 7); and the step of cutting the substrate into sheets after deposition of the material (paragraph 91; figure 6) in order to better manufacture large area displays of relatively light weight for use in portable devices (paragraph 8). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the method of manufacturing a light display as taught by Sakamaki et al with the

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stationary sources, the light sources, and the web mounted substrate as taught by Grace et al ('401).

Motivation to combine would be to better manufacture large area displays of relatively lightweight for use in portable devices.

Claims 8, 9, 15, 16, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al (US 6842278) in view of Baude et al (US 2003015384).

In regard to claims 8, 9, 15, and 20-23, Sakamaki et al ('278) disclose all the limitations set forth as described above, except the mask is a flexible sheet; the steps of cleaning material from the masks and reusing the masks; the step of shifting the mask relative to the substrate in a direction perpendicular to the direction of transport between sources; the means for attaching the mask to the substrate is a mechanical clamp that includes means for maintaining the substrate in a planar configuration; the clamp includes a rectangular frame having clamps on two opposing edges. Baude et al ('384) teaches the mask is a flexible sheet (paragraph 3); the steps of cleaning material from the masks and reusing the masks (paragraph 74); the step of shifting the mask relative to the substrate in a direction perpendicular to the direction of transport between sources (paragraphs 25, 36-37; figures 5-8); the means for attaching the mask to the substrate is a mechanical clamp (figures 9a and 9b; paragraphs 42-43) that includes means for maintaining the substrate in a planar configuration (see figure 9a); the clamp includes a rectangular frame having clamps on two opposing edges (see figure 9a) in order to reduce costs and improve performance (paragraph 6). Hence, it would have been obvious at the invention to one of ordinary skill in the art to combine the method of manufacturing a light display as taught by Sakamaki et al with the mask of Baude. Motivation to combine would be to reduce costs and improve performance.

In regard to claims 16, 18, and 19, Sakamaki et al ('278) disclose all the limitations set forth as described above, except the mask is made of a magnetic material and the means for attaching the mask to the substrate is a magnet located on an opposite side of the substrate from the mask; the magnet is a fixed magnet; and the magnet is conveyed along with the substrate. Baude et al ('384) teach the mask is made of a magnetic material (10L; figure 8; paragraphs 38 and 39) and the means for attaching the mask (10L) to the substrate (52) is a magnet located on an opposite side of the substrate from the mask (82; see figure 8); the magnet is a fixed magnet (paragraphs 38 and 39); and the magnet is conveyed along with the substrate (paragraphs 38 and 39) in order to reduce costs and improve performance (paragraph 6). Hence, it would have been obvious at the invention to one of ordinary skill in the art to combine the method of manufacturing a light display as taught by Sakamaki et al with the mask of Baude. Motivation to combine would be to reduce costs and improve performance.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al (US 6842278) in view of D'Amato (US 6440277).

Sakamaki et al ('278) disclose all the limitations set forth as described above, but is silent regarding the limitation that the mask is a rigid sheet. D'Amato ('277) teaches a mask made from a rigid sheet in order to better deposit the material onto the desired location (column 7 lines 20-29). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the method of producing a light device as taught by Sakamaki et al with the mask of D'Amato. Motivation to combine would be to better deposit the material onto the desired location.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamaki et al (US 6842278) in view of Baude et al (US 2003015384) and in further view of D'Amato (US 6440277).

Sakamaki/Baude disclose all the limitations set forth as described above, but is silent regarding the limitation that the means for attaching the mask includes a reference surface for locating the substrate with respect to the source of material. D'Amato ('277) teaches a means for attaching the mask includes a reference surface for locating the substrate with respect to the source of material in order to better deposit the material onto the desired location (column 7 lines 20-29). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the method of producing a light device as taught by Sakamaki/Baude with the mask of D'Amato. Motivation to combine would be to better deposit the material onto the desired location.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

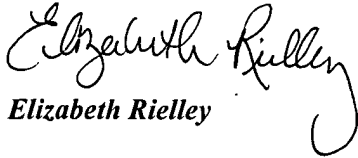
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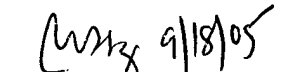
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Elizabeth Rielley

Examiner
Art Unit 2879



MARICELI SANTIAGO
PRIMARY EXAMINER